

**Amendments to the Drawings:**

Please replace Figs. 1, 2A, 2B, 2C and 3, with the attached replacement sheets. If the Examiner so requests, the applicants will submit drawings with the changes are marked in red.

## Remarks

Reconsideration of the present application, as amended, is respectfully requested.

In the specification, the applicants have amended paragraphs on pages 11 and 13 as suggested by the Examiner. Additionally, the applicants amended paragraphs on pages 8 and 11 to correct various typographical errors.

Replacement drawings are submitted for all figures, i.e., Figs. 1, 2A, 2B, 2C and 3. Fig. 1 is replaced to fully illustrate the description in the specification; Fig. 2A is replaced to indicate the reference numeral, "108," for the clock recovery block as a whole and better label the divide by N block 204; Fig 2B is replaced to better position the lines for the reference numerals, "218" and "220"; Fig. 2C is replaced for better placement of the elements and reference numerals; and Fig. 3 is replaced so that one branch of the decision step 308 is vertical.

With respect to the claims, of previously pending claims 1-27, all were rejected. Claim 20 has been amended to correct the typographical error pointed out by the Examiner.

Substantively, claims 1-3, 11, 19, and 27 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2003/0016423, which was published January 23, 2003 with K.H. Cho *et al*, inventors. Claims 6-10, 14-18, and 22-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over the cited Cho patent application. Claims 4, 5, 12, 13, 20, and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Cho patent application in view of U.S. Patent No. 6,466,886, which issued October 15, 2002 to O. Marmur.

Applicants address their arguments with respect to independent claims 1, 11, 19, and 27 which have all been amended.

As amended, claim 1 includes the step of "automatically identifying a clock rate of said electrical signal through a clock recovery circuit." The cited Cho patent application does not perform such a step. As illustrated in Fig. 2, the clock/data recovery circuit 370 is not involved in identifying a clock rate. Rather, the bit rate sensing circuit 240 and the bit rate-recognition circuit 250 generate signals corresponding to the bit rate of the signal from the amplifier circuit 210. See paragraphs 0030, 0034 and 0042. Note that the Cho patent application distinguishes

the difficulty of clock/data recovery circuits with different bit rate signals. See paragraphs 0006 and 0007.

Hence claim 1 is not anticipated by the Cho patent application and should be patentable. Independent claim 27 should likewise be patentable. Dependent claims 2-10 should also be allowable for at least being dependent upon an allowable base claim.

Independent claim 11 was amended so that the claimed apparatus has “a control processor that directs said clock recovery block to attempt iteratively to lock to said optical signal using a plurality of clock rates, and that upon achieving lock using a clock rate matching that of said optical signal, employs said matching clock rate to determine a signal type of said optical signal.” In rejecting claim 11, the Examiner found, “a control processor (350 in Figure 2) that directs said clock recovery block to attempt to lock to said optical signal using a plurality of clock rates ([0017], a set of bit rate is stored in a memory), and that upon achieving lock using a clock rate matching that of said optical signal, employs said matching clock rate to determine a signal type of said optical signal ([0042]).” However, the controller 350 does not direct the clock recovery block to attempt iteratively to lock to the optical signal. Rather, the controller 350 simply responds to the control signal from the bit rate-recognition circuit 250 and sets the clock rate for the clock recovery block 370. See paragraph 0042.

Hence claim 11 is not anticipated by the Cho patent application and should be patentable. Dependent claims 12-18 should be patentable for at least being dependent upon an allowable base claim.

Independent claim 19 has “a control processor that, based on said difference of rate from said clock recovery block, determines a signal type of said received optical signal.” The applicants have amended the claim 19 to better indicate that the control processor is responsive to the difference of rate which comes from the clock recovery block. The control processor 350 in Fig. 2 does not determine a signal type of said received optical signal based on said difference of rate. As described above, the controller 350 is responsive “to the voltage level of the recognition signal applied from the bit rate-recognition circuit 250, in which the controller 250 [sic] determines the bit rate from the voltage level of the recognition signal on the basis of a look-up table stored in the memory 360.” Paragraph 0042. Notice that the controller 350 in Fig.

2 sends signals to the clock/data recovery circuit 370; it does not receive from the clock/data recovery circuit 370.

Hence claim 19 is not anticipated by the Cho patent application and should be allowable. Dependent claims 20-26 should be allowable for at least being dependent upon an allowable base claim.

### **Conclusion**

Therefore, in view of the remarks above, the applicant requests that the rejections be withdrawn, that claims 1-27 be allowed, and the case be passed to issue. If a telephone conference would in any way expedite the prosecution of the application, the Examiner is asked to call the undersigned at (408) 868-4088.

Respectfully submitted,

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